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PILECO Diesel Hammer D180 Pile Hammer Bearing Chart

This chart is based on the Engineering News Record (ENR) formula for pile bearing capacity and is provided as a convenience only.

Pile bearing (Tons) = $2E/(S + 0.1)/2000$, where E = Hammer energy (given by the Saximeter formula)
 S = Pile set (inch per blow)

Blow per Minute	Ram Stroke (ft)	Hammer Energy (lb.ft)	Pile Set (Blows per inch)											
			1	2	3	4	5	6	7	8	9	10	11	12
35	11.52	457,267	416	762	1055	1306	1524	1715	1883	2032	2166	2286	2395	2494
36	10.88	431,564	392	719	996	1233	1439	1618	1777	1918	2044	2158	2261	2354
37	10.28	407,917	371	680	941	1165	1360	1530	1680	1813	1932	2040	2137	2225
38	9.73	386,112	351	644	891	1103	1287	1448	1590	1716	1829	1931	2022	2106
39	9.22	365,962	333	610	845	1046	1220	1372	1507	1626	1734	1830	1917	1996
40	8.75	347,305	316	579	801	992	1158	1302	1430	1544	1645	1737	1819	1894
41	8.32	329,996	300	550	762	943	1100	1237	1359	1467	1563	1650	1729	1800
42	7.91	313,909	285	523	724	897	1046	1177	1293	1395	1487	1570	1644	1712
43	7.53	298,931	272	498	690	854	996	1121	1231	1329	1416	1495	1566	1631
44	7.18	284,963	259	475	658	814	950	1069	1173	1267	1350	1425	1493	1554
45	6.85	271,915	247	453	627	777	906	1020	1120	1209	1288	1360	1424	1483
46	6.54	259,709	236	433	599	742	866	974	1069	1154	1230	1299	1360	1417
47	6.26	248,274	226	414	573	709	828	931	1022	1103	1176	1241	1300	1354
48	5.99	237,547	216	396	548	679	792	891	978	1056	1125	1188	1244	1296
49	5.73	227,469	207	379	525	650	758	853	937	1011	1077	1137	1192	1241
50	5.49	217,990	198	363	503	623	727	817	898	969	1033	1090	1142	1189
51	5.27	209,062	190	348	482	597	697	784	861	929	990	1045	1095	1140
52	5.06	200,645	182	334	463	573	669	752	826	892	950	1003	1051	1094

Caution: Driving at more than 20 blows per inch (set of 0.05 inch per blow) is considered practical refusal.



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PILECO Diesel Hammer D180 Pile Hammer Bearing Chart

This chart is based on the Engineering News Record (ENR) formula for pile bearing capacity and is provided as a convenience only.

Pile bearing (kN) = $100E/(S + 0.254)/6$, where E = Hammer energy (given by the Saximeter formula)
 S = Pile set (cm per blow)

Blows per Minute	Ram Stroke (m)	Hammer Energy (kJ)	Pile Set (Blows per 2cm)											
			5	6	7	8	9	10	11	12	13	14	15	16
35	3.51	620	15812	17606	19160	20517	21714	22777	23727	24582	25355	26057	26697	27284
36	3.32	586	14923	16617	18083	19365	20494	21497	22394	23201	23930	24593	25197	25751
37	3.13	554	14106	15707	17093	18304	19372	20320	21167	21930	22619	23246	23817	24341
38	2.97	524	13352	14868	16179	17326	18337	19234	20037	20758	21411	22004	22545	23040
39	2.81	497	12656	14092	15336	16422	17380	18231	18991	19675	20294	20856	21369	21839
40	2.67	471	12011	13374	14554	15585	16495	17302	18024	18673	19260	19793	20280	20726
41	2.54	448	11413	12708	13829	14809	15673	16440	17126	17743	18300	18807	19270	19693
42	2.41	426	10856	12089	13155	14088	14909	15639	16292	16878	17409	17891	18331	18734
43	2.30	406	10339	11512	12528	13416	14198	14893	15515	16073	16579	17038	17457	17841
44	2.19	387	9856	10975	11943	12789	13535	14198	14790	15323	15805	16242	16642	17007
45	2.09	369	9405	10473	11397	12204	12916	13548	14113	14622	15081	15499	15880	16229
46	2.00	352	8983	10003	10885	11657	12337	12940	13480	13966	14405	14804	15168	15501
47	1.91	337	8588	9563	10406	11144	11794	12371	12887	13351	13771	14152	14500	14819
48	1.83	322	8217	9150	9957	10663	11285	11837	12331	12775	13176	13541	13874	14179
49	1.75	309	7869	8762	9535	10211	10806	11335	11808	12233	12618	12967	13286	13578
50	1.68	296	7541	8397	9138	9785	10356	10863	11316	11724	12092	12427	12733	13013
51	1.61	284	7233	8053	8764	9385	9933	10419	10853	11244	11598	11919	12212	12480
52	1.54	272	6942	7730	8412	9008	9533	10000	10417	10792	11131	11439	11721	11978

Caution: Driving at more than 8 blows per cm (set of 0.125 cm per blow) is considered practical refusal.